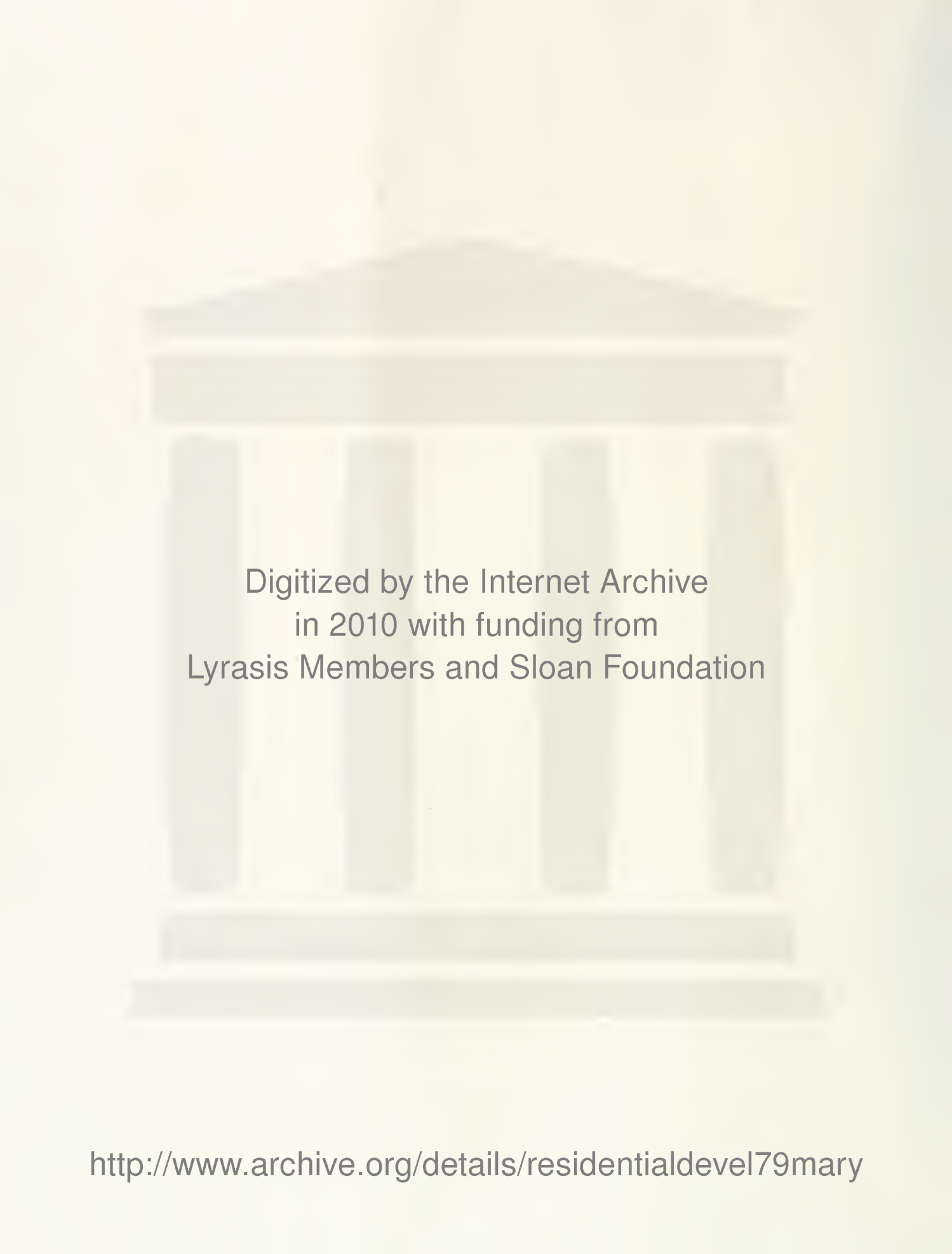

RESIDENTIAL DEVELOPMENT in BALTIMORE CITY and BALTIMORE COUNTY

Maryland State Planning Commission

RESIDENTIAL DEVELOPMENT

in

BALTIMORE CITY AND BALTIMORE COUNTY

MARYLAND STATE PLANNING COMMISSION

April 1953

MARYLAND STATE PLANNING COMMISSION
100 Equitable Building
Baltimore 2, Maryland

Publication No. 79 Price 50 cents

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MARYLAND STATE PLANNING COMMISSION

100 Equitable Building
Baltimore 2, Maryland

April 27, 1953

TO HIS EXCELLENCY
THEODORE R. McKELDIN
GOVERNOR OF MARYLAND

Dear Governor McKeldin:

It is with pleasure that I transmit herewith the results of the Commission's recent study of "Residential Development in Baltimore City and Baltimore County."

In view of the Commission's long-standing interest and participation in the planning and coordination of metropolitan planning activities, the study of residential expansion was undertaken to determine future housing needs in the Baltimore Area and the likelihood of saturation of residential land in the City proper.

A statistical count was made of new construction completed in the past four years, according to value and type of structure. Furthermore, a survey of residents choosing new housing outside the City was carried out, for the purpose of understanding personal preferences in housing location. In addition, a forecast of the number of new households to be expected in the Metropolitan Area was developed to 1975, to indicate potential demand for new residential construction. The future demand was related to available vacant land in Baltimore City, and a determination was made as to the possibility of saturation within twenty-five years.

The study has proved to be a most interesting one from the point of view of the results obtained and the indicated planning problems requiring area consideration. It is the Commission's hope that this report will prove to be the forerunner of many important studies devoted to the consideration and solution of long-term community problems confronting the Baltimore Metropolitan Area.

Respectfully submitted,

James C. Alban
Chairman

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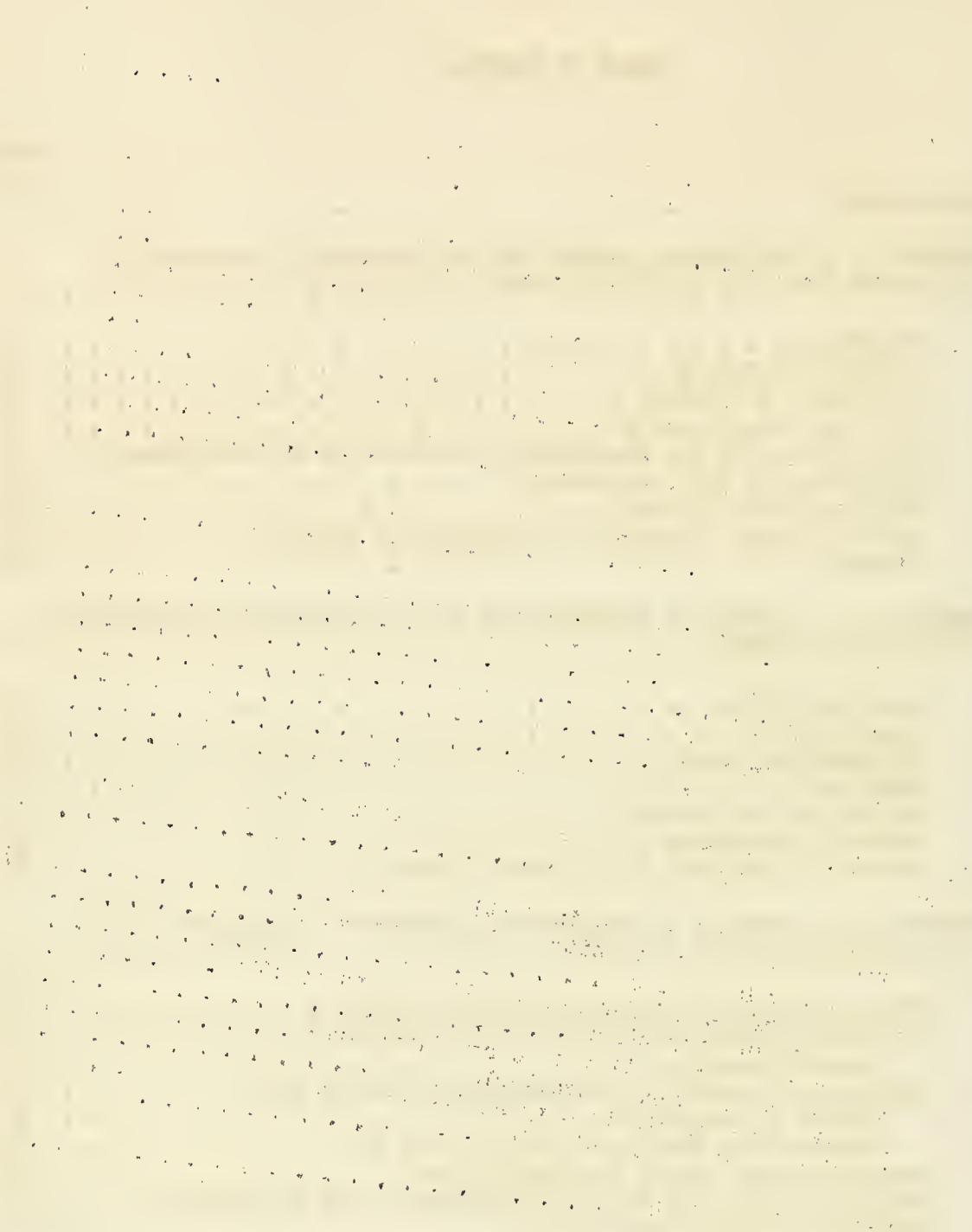

TABLES

FIGURE

ACKNOWLEDGMENTS

The Maryland State Planning Commission wishes to express its appreciation to the many persons who gave so generously of their time and the facilities at their disposal in helping with the successful completion of this report:

To Mr. Roland Eppley, who carried out the original research and analysis, conducted the house-to-house survey, and documented his findings in this report, with the advice of Professor Fritz Machlup, of The Johns Hopkins University, and Mrs. Shirley F. Weiss, Staff Economist.

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RESIDENTIAL DEVELOPMENT IN BALTIMORE CITY AND BALTIMORE COUNTY

INTRODUCTION

During World War II Baltimore experienced a substantial rise in population as a result of various factors.[1/] The most important cause was the migration of workers from other areas to the wartime industries of this metropolis. This factor was augmented by a high birth rate, declining death rate, and a large number of early marriages prompted by the war.

The effect of this situation on housing demand was obvious. The war workers and newlyweds needed homes in which to live. At the time, however, materials were needed more desperately in other industries connected directly with the defense effort. This meant doubling up on the part of many workers and necessitated the moving of many new couples into the family home or an apartment. The great demand for 1- and 2-family structures and apartments became more acute as the war progressed.

Furthermore, other factors were operating to accentuate the demand. First, the amount of consumer goods on the market was very small. Consequently many people were forced to save. Then, too, many service men sent money home to be saved. Many families bought government bonds. Thus, coupled with the need for new dwelling units, the financial resources needed for purchase were available.

Further swelling demand was the need for replacement of old buildings. Wear and tear on old buildings had been increased by war-time overcrowding and the general lack of materials to keep up routine repairs.

Therefore, shortly after the war's end communities mushroomed all over the outlying areas of the City, and, for the first time, the

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1/ Between 1940 and 1950, Baltimore City recorded a population increase of 90,608; Baltimore County, 114,448.

counties around Baltimore experienced a building boom equal to or exceeding that of the City. Although there still was a great deal of residential area undeveloped, people began to feel the squeeze. Many, when confronted with the purchase of a new home, preferred the County to the City. A great pressure was developing around Baltimore for more extensive suburban residential development. This report is a study of the residential construction boom and its future potential in Baltimore City and Baltimore County.

The study is divided into three chapters. The first chapter is a statistical account of the construction of 1- and 2-family and multi-family structures in Baltimore City from 1948 through 1951 and in Baltimore County from 1949 through 1951. The statistics are broken down to provide information on the number of structures and the total value. The totals are subdivided into price ranges so that the building activity, according to type of structure, can also be ascertained. This chapter, in general, is designed to give a picture of how voluminous the residential construction has been in Baltimore City and County in the last few years.

The second chapter covers personal interviews with residents of the new 1- and 2-family structures in Baltimore County. The purpose of the survey was to determine why persons took up residence in the County. Also presented in this section are statistics on previous place of residence and a structural comparison between the quarters vacated and the new residence.

The third chapter represents a forecast of the demand for new dwelling units in Baltimore City and County between 1950 and 1975. These results are used to estimate the time of eventual saturation of residential land in Baltimore City and the rate of urbanization of Baltimore County. A discussion of whether or not future saturation is at this time an acute problem is presented. Also included in this chapter is a consideration of the implications of the predicted urbanization of Baltimore County.

Providing facilities such as roads, schools, hospitals, police, and fire protection, and the many other community needs is of great concern to any government even under normal conditions. Providing for these facilities is a problem of even greater magnitude in face of the rapid expansion predicted for the Baltimore County Area. Therefore, it is vital that adequate steps be taken now to ensure that the necessary community facilities will keep apace of the residential growth indicated.

In sum, two basic questions are answered.

(1) What rate of expansion of dwelling units can Baltimore City expect in the next twenty-five years, and will the expansion create any acute problems insofar as saturation of the City's remaining residential acreage?

(2) What rate of expansion of dwelling units can Baltimore County expect in the next twenty-five years? In conjunction with this, what effects will rapid urbanization have on the area?

CHAPTER I

A STATISTICAL ACCOUNT OF THE RESIDENTIAL BUILDING IN BALTIMORE CITY AND BALTIMORE COUNTY

Procedure

In gathering information for this report, the Commission abandoned, as far as possible, the general technique of basing estimates of building on the number of permits issued, because it felt these figures were inaccurate in certain respects. In the first place, some residential structures for which permits are issued are never built. Second, one can never foretell, from the date of permit issuance, when the structure was finished. Often there is as much as a year or two lag between the permit issuance and the completion of the structure. Since the Commission wanted to present information on residential structures actually built each year, a different method was used.

Alternative Method

While looking for a method that would give accurate yearly data, assessment records were found to be the best available. The reason for this is explained by assessment procedure. When a permit is issued a copy is sent to the assessment bureau. Each permit is investigated yearly until the residential structure is substantially completed. At this time it is assessed. Since this procedure is uniform in City and County, it is possible to find the number of structures finished each year by finding the number of new residential structures assessed. This was done by going through the files of the Baltimore City and County assessment bureaus and tabulating the number of new residential structures assessed each year. It is believed that this method is the most accurate one available for the purposes of the study.

Difference in Methods

In discussing the two methods of determining the volume of residential construction it must be admitted that each method has its uses. Although figures based on building permits are preliminary in nature, for certain purposes they are more applicable than an actual count of the number of completed structures from assessment records. For instance, furniture dealers, household appliance manufacturers, and department stores are more interested in getting a rough idea of what is to be forthcoming in new residential structures. The fact that a certain percentage of permits is never carried through does not affect the merchant's calculation to any degree. Even if it did have an effect, the dealer could not wait until the structure was completed to start stocking up. Therefore, the assessment method is of little value in such a case.

However, where statistical accounts are being taken to determine what has been the past volume of construction, assessment figures are far more satisfactory, for they eliminate the error due to time lag or noncompletion of structures for which permits were authorized.

It can be seen from Table 1 that the difference between the figures obtained on the number of 1- and 2-family structures built in any year, under the two methods, can be quite large. For example, the table shows that in Baltimore City in 1950 the difference between results of the permit method and the assessment method was over 2,000 structures. This difference cannot really be attributed to inaccuracies of either method since the results under the two methods are not directly comparable. There is a time lag of from one to two years between the time when the permit is taken out and the structure completed. Therefore, it is impossible to determine whether to compare the permits issued in one year with the completed

structures of the same year, the following year, or two years hence. For this reason, it is best not to compare the results obtained under the two methods, but merely to admit that each method has its own use.

TABLE 1

Comparison of Structures Completed and Building Permits Issued, New 1- and 2-Family Structures, Baltimore City and Baltimore County, 1948-1951

YEAR	NUMBER COMPLETED[1]	BUILDING PERMITS[2]
	Baltimore City	
1948	2,816	3,797
1949	2,396	2,885
1950	3,392	5,661
1951	5,213	5,113
	Baltimore County	
1949	3,277	3,566
1950	3,560	6,359
1951	4,193	5,640

1/ Baltimore City: Department of Assessments
Baltimore County: Supervisor of Assessments

2/ Baltimore City: U. S. Bureau of Labor Statistics
Baltimore County: Planning Commission

Total New Construction

For the three-year period from 1949 through 1951, there were 22,031 1- and 2-family structures built in Baltimore City and Baltimore County, with a reported value of $145,000,000. In Table 2, the year-by-year construction is shown for the City and County. Because of incomplete files for the year 1948, it was necessary to omit County construction data for that year.

In 1949 and 1950, the County exceeded the City in the number of 1- and 2-family structures completed. However, in 1951 the trend was reversed, and Baltimore City completed a total of 5,213 structures compared with 4,193 for Baltimore County. On a per cent basis (see Table 3), Baltimore City accounted for 55.4% of the number of new structures and 55.8% of their value in 1951. For the three-year period, it is interesting to note that almost equal numbers of structures were completed in the City and County, amounting to 11,001 and 11,030 respectively. In value, however, the total for the City ($75,757,985) was significantly higher than the County ($69,223,101).

TABLE 2

Number and Value of New 1- and 2-Family Structures,
Baltimore City and Baltimore County,
1948 - 1951

Year	Total Number	Total Value	Average Value 1/
		Baltimore City	
1948	2,816	$20,534,330	$ 7,292
1949	2,396	17,726,849	7,399
1950	3,392	22,936,003	6,762
1951	5,213	35,095,133	6,732
		Baltimore County	
1948	2/	2/	2/
1949	3,277	$18,449,042	$ 6,037
1950	3,560	23,028,236	7,029
1951	4,193	27,745,823	6,839

1/ Excluding few structures for which construction costs were not shown on Baltimore County records.
2/ Omitted because of incomplete files.

TABLE 3

Per Cent Distribution of New 1- and 2-Family Structures
in Baltimore City and Baltimore County,
By Number and Value, 1949 - 1951

Year	Total Number	% City	% County
1949	5,673	42.2	57.8
1950	6,952	48.8	51.2
1951	9,406	55.4	44.6

Year	Total Value	% City	% County
1949	$36,175,891	49.0	51.0
1950	45,964,239	49.9	50.1
1951	62,840,956	55.8	44.2

Distribution of New Residential Construction by Price Range

In presenting the summary of residential building in Baltimore City and Baltimore County for the four-year period studied, it was felt that a price-range breakdown would furnish the best picture of the building activity for 1- and 2-family structures (detached, semi-detached, and row).[1/] These figures, representing the builder's estimate of construction cost, provide an excellent basis for analysis. The structures were divided into ranges of less than $2,500 up to $20,000 and a single category of over $20,000.

For each year tabulated, a per cent distribution of new 1- and 2-family structures was prepared for Baltimore City and Baltimore County. Analyzed according to number completed and value reported, the yearly breakdown of residential construction is given in Table 4.

It is interesting to note that from 1948 through 1951, the leading

1/ The builder's estimate of the cost of construction is estimated by the assessment bureaus of the City and County to be about 20% below the real cost of the building.

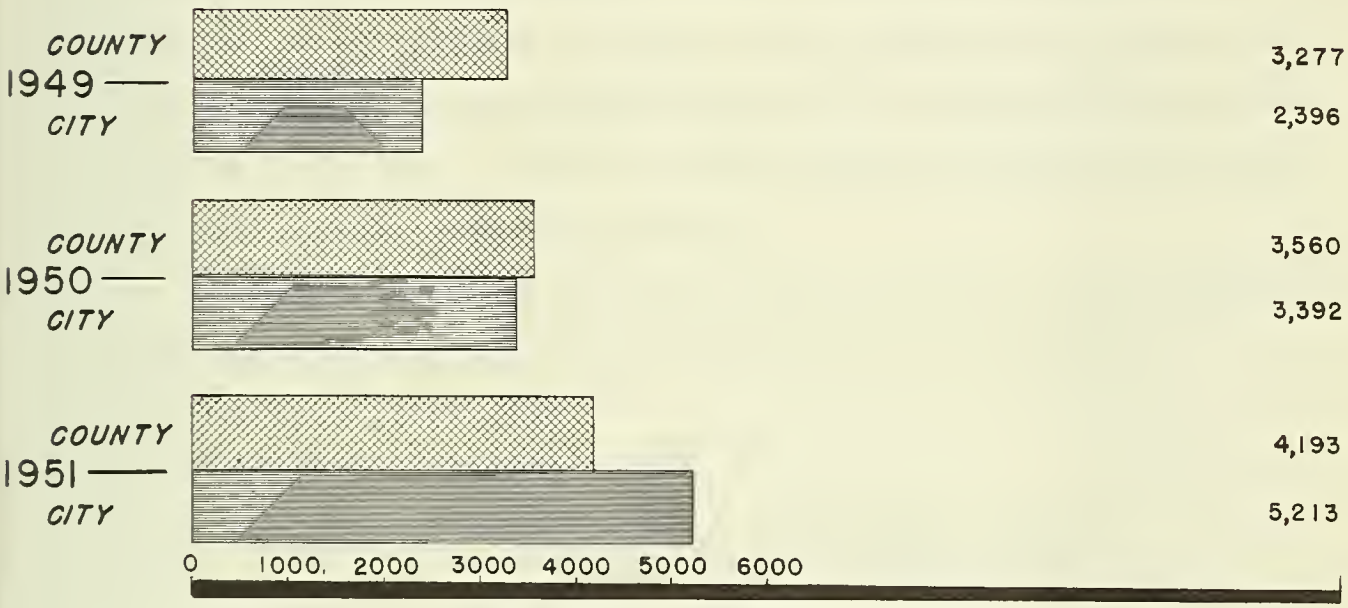
FIGURE 1

NEW RESIDENTIAL CONSTRUCTION

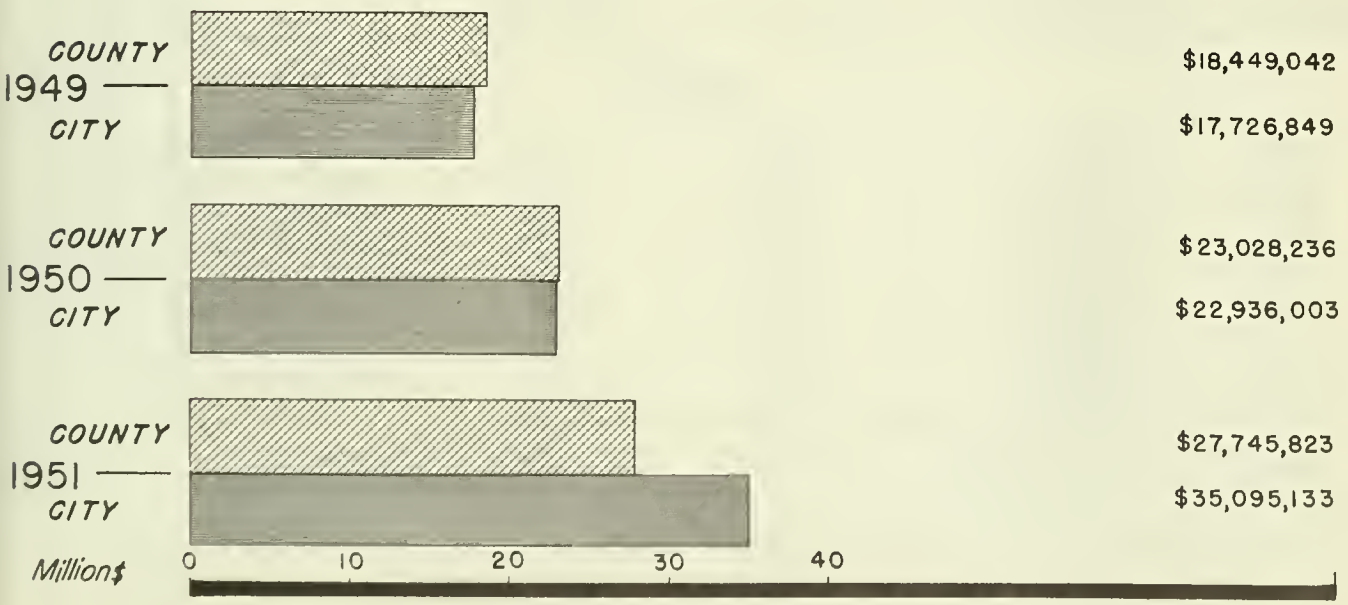
BALTIMORE CITY AND BALTIMORE COUNTY

ONE- AND TWO-FAMILY STRUCTURES

1949 - 1950 - 1951



NUMBER OF STRUCTURES



TOTAL VALUE

range in the number of new 1- and 2-family structures built in Baltimore City was $5,001-$7,500. The County, on the other hand, had no one dominant range, but fluctuated between the $2,501-$5,000 range and the $5,001-$7,500 range from year to year.

Although the $5,001-$7,500 range led in the number of new 1- and 2-family structures in every year in the City, it was second to the $7,501-$10,000 range in total value of new 1- and 2-family structures for 1948 and 1949. In 1950 and 1951 as a result of the completion of a great number of row dwellings, the $5,001-$7,500 range took the lead in both number and value in the City. In 1951 this range accounted for more than half the total recorded, in number and value.

In the County the $5,001-$7,500 range led in 1949 and 1950, but in 1951 the $7,501-$10,000 range ranked first, in total value.

TABLE 4

Per Cent Distribution of New 1- and 2-Family Structures by Price Range, Baltimore City and Baltimore County, 1948 - 1951

Price Range	Number New 1- & 2-Family Structures	% Total[1/]	Value New 1- & 2-Family Structures	% Total[1/]
		1948 City		
$0-$2,500	5	0.2	$ 10,125	0.1
$2,501-$5,000	762	27.1	3,619,300	17.6
$5,001-$7,500	989	35.1	6,342,300	30.9
$7,501-$10,000	775	27.5	6,758,180	32.9
$10,001-$12,500	169	6.0	1,931,625	9.4
$12,501-$15,000	76	2.7	1,076,800	5.2
$15,001-$17,500	17	0.6	283,500	1.4
$17,501-$20,000	10	0.3	195,500	1.0
over $20,000	13	0.5	317,000	1.5
Total	2,816	100.0	$20,534,330	100.0

1/ May not total 100.0% due to rounding.

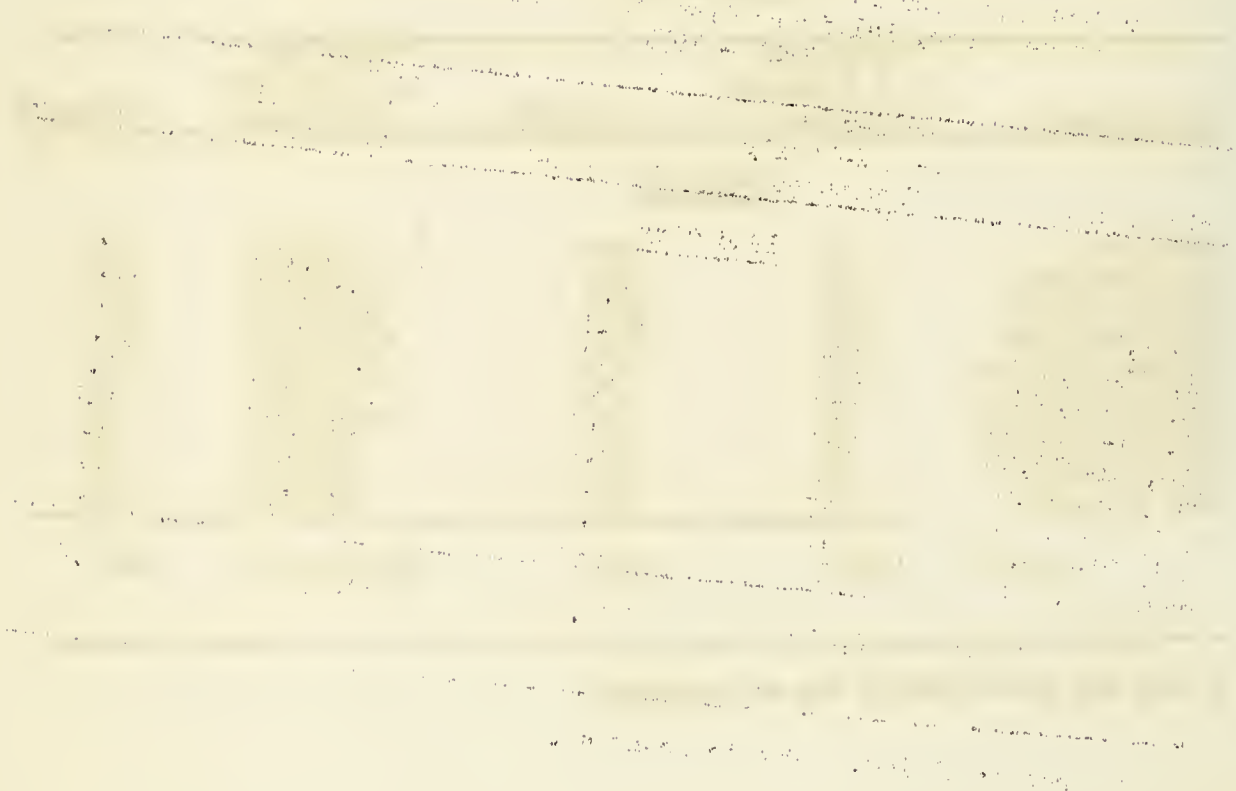


TABLE 4 (Continued)

1949 City

Price Range	Number New 1- & 2-Family Structures	% Total[1/]	Value New 1- & 2-Family Structures	% Total[1/]
$0-$2,500	3	0.1	$ 7,500	0.1
$2,501-$5,000	251	10.5	1,232,799	7.0
$5,001-$7,500	1,128	47.1	7,081,900	39.9
$7,501-$10,000	913	38.1	7,689,350	43.4
$10,001-$12,500	29	1.2	337,400	1.9
$12,501-$15,000	25	1.0	347,800	2.0
$15,001-$17,500	6	0.2	97,300	0.6
$17,501-$20,000	24	1.0	456,600	2.6
over $20,000	17	0.7	476,200	2.7
Total	2,396	100.0	$17,726,849	100.0

1949 County

$0-$2,500	307	10.0	$ 424,280	2.3
$2,501-$5,000	1,253	41.0	5,216,985	28.3
$5,001-$7,500	851	27.8	5,441,930	29.5
$7,501-$10,000	425	13.9	3,773,540	20.5
$10,001-$12,500	101	3.3	1,183,175	6.4
$12,501-$15,000	45	1.5	646,400	3.5
$15,001-$17,500	20	0.7	327,300	1.8
$17,501-$20,000	27	0.9	515,432	2.8
over $20,000	27	0.9	920,000	5.0
No Value Given	221	—	—	—
Total (Less No Value Given)	3,056	100.0	$18,449,042	100.0

1950 City

$0-$2,500	2	0.1	$ 3,000	0.1
$2,501-$5,000	1,047	30.9	4,734,090	20.6
$5,001-$7,500	1,567	46.2	9,848,850	42.9
$7,501-$10,000	607	17.9	5,086,538	22.2
$10,001-$12,500	42	1.2	469,049	2.0
$12,501-$15,000	32	0.9	462,580	2.0
$15,001-$17,500	19	0.6	308,996	1.3
$17,501-$20,000	27	0.8	518,100	2.3
over $20,000	49	1.4	1,504,800	6.6
Total	3,392	100.0	$22,936,003	100.0

1/ May not total 100.0% due to rounding.

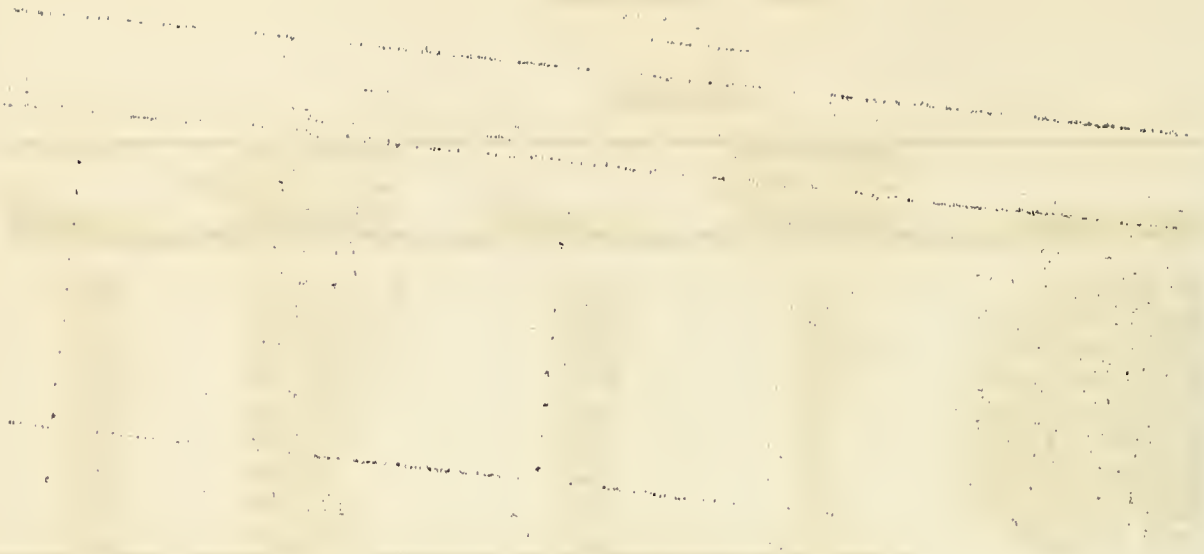


TABLE 4 (Continued)

1950 County

Price Range	Number New 1- & 2-Family Structures	% Total[1/]	Value New 1- & 2-Family Structures	% Total[1/]
$0-$2,500	293	8.9	$ 438,775	2.0
$2,501-$5,000	887	27.1	3,717,020	16.1
$5,001-$7,500	1,019	31.1	6,502,228	28.2
$7,501-$10,000	632	19.3	5,597,095	24.3
$10,001-$12,500	245	7.5	2,879,234	12.5
$12,501-$15,000	94	2.9	1,329,995	5.8
$15,001-$17,500	29	0.9	473,226	2.1
$17,501-$20,000	39	1.2	739,000	3.2
over $20,000	38	1.2	1,351,663	5.9
No Value Given	284	—	—	—
Total (Less No Value Given)	3,276	100.0	$23,028,236	100.0

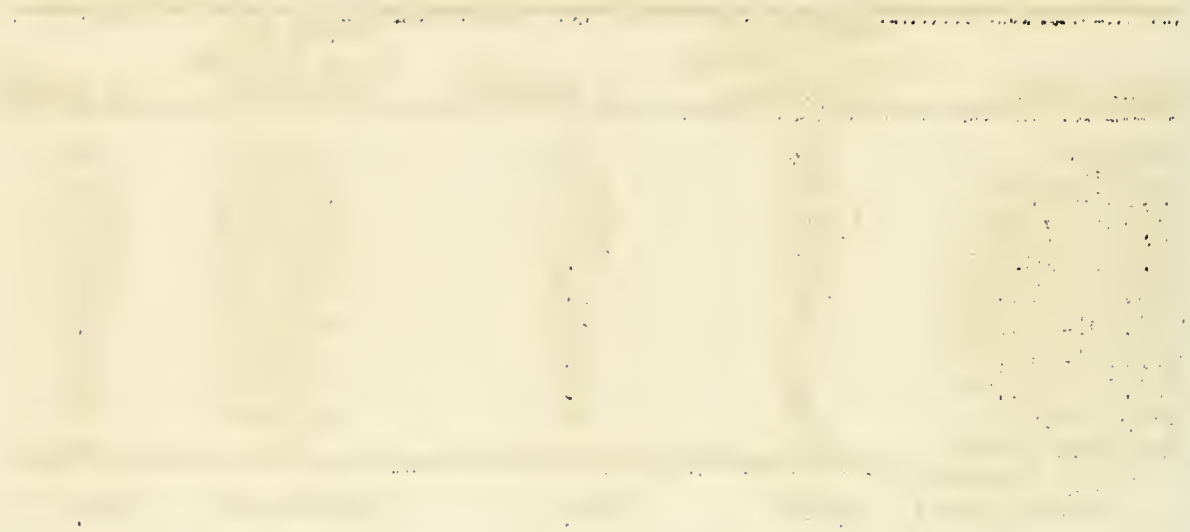
1951 City

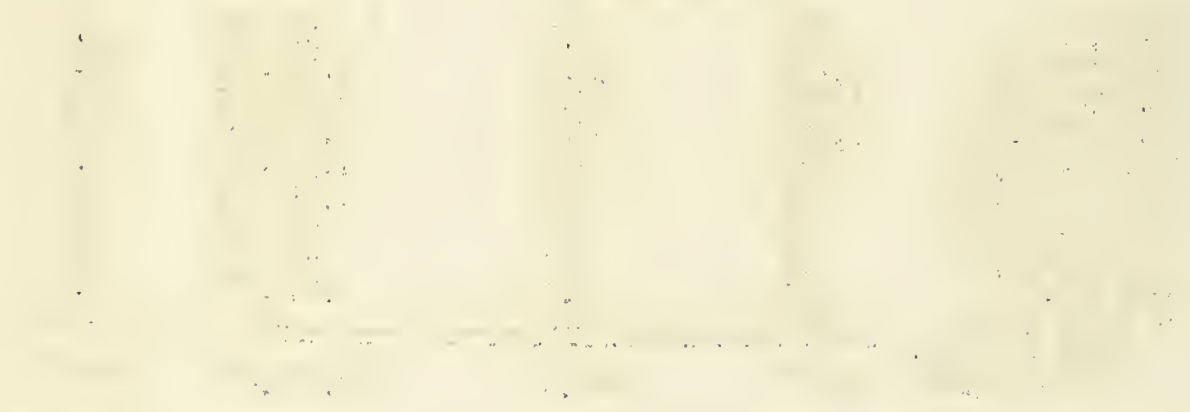
$0-$2,500	6	0.1	$ 12,700	0.1
$2,501-$5,000	1,033	19.8	5,016,660	14.3
$5,001-$7,500	3,103	59.5	18,722,548	53.3
$7,501-$10,000	744	14.3	6,487,947	18.5
$10,001-$12,500	142	2.7	1,652,751	4.7
$12,501-$15,000	111	2.1	1,546,002	4.4
$15,001-$17,500	7	0.1	112,854	0.3
$17,501-$20,000	30	0.6	562,200	1.6
over $20,000	37	0.7	981,490	2.8
Total	5,213	100.0	$35,095,133	100.0

1951 County

$0-$2,500	259	6.4	$ 379,130	1.4
$2,501-$5,000	1,286	31.7	5,184,250	18.7
$5,001-$7,500	1,061	26.2	6,979,061	25.2
$7,501-$10,000	1,092	26.9	9,451,860	34.1
$10,001-$12,500	138	3.4	1,585,987	5.7
$12,501-$15,000	104	2.6	1,478,683	5.3
$15,001-$17,500	34	0.8	553,167	2.0
$17,501-$20,000	36	0.9	683,885	2.5
over $20,000	47	1.2	1,449,800	5.2
No Value Given	136	—	—	—
Total (Less No Value Given)	4,057	100.0	$27,745,823	100.0

1/ May not total 100.0% due to rounding.





Comparison of City and County

For each price range, Table 5 presents the total number and total value of new 1- and 2-family structures completed in Baltimore City and Baltimore County and shows what per cent of the total was constructed yearly in each political subdivision. The most salient points of the detailed tabulation are considered below.

$0-$2,500. The striking feature of this range, as noted in Table 5, is that almost all the 1- and 2-family structures (more than 96%) were built in Baltimore County. This is explained by the fact that most of these inexpensive structures are shore property. These structures, being temporary dwelling units in general, are not representative of the building activity presented in this report.

$2,501-$5,000. Ranking third in number of 1- and 2-family structures built, this range embodies mostly cheaper row structures and better shore property. Also included are many prefabricated single dwellings found in large-scale housing developments near industrial plants in Baltimore County.

In 1949 and 1951 the number of 1- and 2-family structures built in the County predominated; in 1950 the reverse was true. While the County experienced a significant drop in the building rate for this category in 1950, construction in the City quadrupled. It is interesting to note that each year an over-all increase of about 400 new 1- and 2-family structures was recorded in this range for the City and County combined.

$5,001-$7,500. This group, which ranked first in total construction for the City and County combined, contains the bulk of residential row structures. It is not unusual, therefore, that the greater amount of building in this range occurred in Baltimore City. In 1951, three times as many new 1- and 2-family structures were constructed in the City as in the County.

Although both City and County had increased building each year in this range, the City's increase was overwhelmingly greater, as seen in Table 5.

For the period from 1949 through 1951, the combined City and County construction in the $5,001-$7,500 range totaled 8,729 structures. The reported value of these structures amounted to nearly $55,000,000.

$7,501-$10,000. This is generally the last group in which residential row structures are found. Also included in this class are many semi-detached dwellings and the first substantial number of detached units. For the period investigated, this group ranked a close second in the number of 1- and 2-family structures built, but was first in total value.

In 1949 more structures in this price range were built in the City than in the County. During that year many higher priced row structures were completed in the Edmondson Avenue and Northwood sections. However, in 1950 and 1951 the County exceeded the City in structures completed.

$10,001-$12,500. In 1949 and 1950 more 1- and 2-family structures in this range were built in the County than in the City; in 1951 the activity was reversed. As might be expected, the total amount of building in these three years was much greater in the County. Of the 697 structures completed, 484 were in the County and 213 in the City.

$12,501-$15,000. This category reflects a pattern similar to the previous one, as to the yearly activity in the City. However, there was less of a disparity in the comparative construction in City and County. For the three-year period, out of the 411 structures completed, 243 were in the County and 168 in the City.

$15,001-$17,500. From 1949 through 1951, the County led in the building of this class of 1- and 2-family structure. Even so, it is noteworthy that 30% of construction in this category took place in the City. There were 105 structures built in all, 32 in the City and 83 in the County.

$17,501-$20,000. Again it is interesting to observe that in the higher priced ranges the City ranked so close to the County in new 1- and 2-family structures built. Although the County led each year, the City was only 3 structures behind in 1949 and 6 in 1951. In 1950, there was a larger difference of 12.

For the three-year period investigated the records seem to indicate that the City is holding its own in the construction of the higher priced 1- and 2-family structures. However, it is obvious that as the City becomes more and more crowded, land will not be available for construction of the type of home found in this category.

Over $20,000. In examining Table 5, once again the relatively large amount of building of expensive 1- and 2-family structures in Baltimore City is to be noticed. Especially in this category, where 1- and 2-family structures may be valued up to $100,000, it is significant that the City should so nearly approach the building activity of the County, and in 1950 should even exceed the efforts of the County. In all, there were 103 structures built in the City and 112, in the County, for the three-year period.

Most likely the explanation of this phenomenon lies in the development of a few new sections of Baltimore City where residential structures are exceptionally expensive. From observation it appears that the Reisterstown Road area on the fringe of the City would fall into this category. Another explanation is the building of several new 1- and 2-family structures in the already accepted high-price developments, such as Homeland. At any rate, the activity is probably only sporadic and will reach its settling point as the pressure for desirable tracts is felt in Baltimore City.

TABLE 5

Comparison of Number and Value of New 1- and 2-Family Structures, by Price Range and Year, Baltimore City and Baltimore County 1949 - 1951

$0 - $2,500

Year	Baltimore City: Total Number New 1- and 2-Family Structures	Baltimore City: Total Value New 1- and 2-Family Structures	Baltimore City: Average Value	Year	Baltimore County: Total Number New 1- and 2-Family Structures	Baltimore County: Total Value New 1- and 2-Family Structures	Baltimore County: Average Value
1949	3	$ 7,500	$2,500	1949	307	$ 424,280	$1,382
1950	2	3,000	1,500	1950	293	438,775	1,498
1951	6	12,700	2,117	1951	259	379,130	1,464

Year	Total No. New 1- and 2-Family Structures City and County	% in City	% in County	Year	Total Value New 1- and 2-Family Structures City and County	% in City	% in County
1949	310	1.0	99.0	1949	$ 431,780	1.7	98.3
1950	295	0.7	99.3	1950	441,775	0.7	99.3
1951	265	2.2	97.8	1951	391,830	3.2	96.8

$2,501 - $5,000

Year	Baltimore City: Total Number New 1- and 2-Family Structures	Baltimore City: Total Value New 1- and 2-Family Structures	Baltimore City: Average Value	Year	Baltimore County: Total Number New 1- and 2-Family Structures	Baltimore County: Total Value New 1- and 2-Family Structures	Baltimore County: Average Value
1949	251	$1,232,799	$4,912	1949	1,253	$5,216,985	$4,164
1950	1,047	4,734,090	4,522	1950	887	3,717,020	4,191
1951	1,033	5,016,660	4,856	1951	1,286	5,184,250	4,031

(Continued)

TABLE 5 (Continued)

$2,501 - $5,000

Year	Total No. New 1- and 2-Family Structures City and County	% in City	% in County	Year	Total Value New 1- and 2-Family Structures City and County	% in City	% in County
1949	1,504	16.7	83.3	1949	$ 6,449,784	19.1	80.9
1950	1,934	54.1	45.9	1950	8,451,110	56.0	44.0
1951	2,319	44.5	55.5	1951	10,200,910	49.2	50.8

$5,001 - $7,500

	Baltimore City				Baltimore County		
Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value	Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	1,128	$ 7,081,900	$ 6,278	1949	851	$ 5,441,930	$ 6,395
1950	1,567	9,848,850	6,285	1950	1,019	6,502,228	6,381
1951	3,103	18,722,548	6,034	1951	1,061	6,979,061	6,578

Year	Total No. New 1- and 2-Family Structures City and County	% in City	% in County	Year	Total Value New 1- and 2-Family Structures City and County	% in City	% in County
1949	1,979	57.0	43.0	1949	$12,523,830	56.5	43.5
1950	2,586	60.6	39.4	1950	16,351,078	60.2	39.8
1951	4,164	74.5	25.5	1951	25,701,609	72.8	27.2

$7,501 - $10,000

	Baltimore City				Baltimore County		
Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value	Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	913	$ 7,689,350	$ 8,422	1949	425	$ 3,773,540	$ 8,879
1950	607	5,086,538	8,380	1950	632	5,597,095	8,856
1951	744	6,487,947	8,720	1951	1,092	9,451,860	8,656

TABLE 5 (Continued)

$7,501 - $10,000

Year	Total No. New 1- and 2-Family Structures City and County	% in City	% in County
1949	1,338	68.2	31.8
1950	1,239	49.0	51.0
1951	1,836	40.5	59.5

Year	Total Value New 1- and 2-Family Structures City and County	% in City	% in County
1949	$ 11,462,890	67.1	32.9
1950	10,683,633	47.6	52.4
1951	15,939,807	40.7	59.3

$10,001 - $12,500

Baltimore City

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	29	$ 337,400	$11,634
1950	42	469,049	11,168
1951	142	1,652,741	11,639

Baltimore County

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	101	$ 1,183,175	$11,715
1950	245	2,879,234	11,752
1951	138	1,585,987	11,493

Year	Total No. New 1- and 2-Family Structures City and County	% in City	% in County
1949	130	22.3	77.7
1950	287	14.7	85.3
1951	280	50.7	49.3

Year	Total Value New 1- and 2-Family Structures City and County	% in City	% in County
1949	$ 1,520,575	22.2	77.8
1950	3,348,283	14.0	86.0
1951	3,238,728	51.0	49.0

$12,501 - $15,000

Baltimore City

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	25	$ 347,800	$13,912
1950	32	462,580	14,456
1951	111	1,546,002	13,928

Baltimore County

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	45	$ 646,400	$14,364
1950	94	1,329,995	14,149
1951	104	1,478,683	14,218

TABLE 5 (Continued)

$12,501 - $15,000

Year	Total No. New 1- and 2-Family Structures City and County	% in City	% in County
1949	70	35.7	64.3
1950	126	25.4	74.6
1951	215	51.6	48.4

Year	Total Value New 1- and 2-Family Structures City and County	% in City	% in County
1949	$ 994,200	35.0	65.0
1950	1,792,575	25.8	74.2
1951	3,024,685	51.1	48.9

$15,001 - $17,500

Baltimore City

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	6	$ 97,300	$16,217
1950	19	308,996	16,263
1951	7	112,854	16,122

Baltimore County

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	20	$ 327,300	$16,365
1950	29	473,226	16,318
1951	34	553,167	16,270

Year	Total No. New 1- and 2-Family Structures City and County	% in City	% in County
1949	26	23.1	76.9
1950	48	40.0	60.0
1951	41	17.1	82.9

Year	Total Value New 1- and 2-Family Structures City and County	% in City	% in County
1949	$ 424,600	23.0	77.0
1950	782,222	39.6	60.4
1951	666,012	16.9	83.1

$17,501 - $20,000

Baltimore City

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	24	$ 456,600	$19,025
1950	27	518,100	19,189
1951	30	562,200	18,740

Baltimore County

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	27	$ 515,432	$19,090
1950	39	739,000	18,949
1951	36	683,885	18,997

TABLE 5 (Continued)

$17,501 - $20,000

Year	Total No. New 1- and 2-Family Structures City and County	% in City	% in County
1949	51	33.3	66.7
1950	66	40.9	59.1
1951	66	45.5	54.5

Year	Total Value New 1- and 2-Family Structures City and County	% in City	% in County
1949	$ 972,032	47.0	53.0
1950	1,257,100	41.2	58.8
1951	1,246,085	45.1	54.9

Over $20,000

Baltimore City

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	17	$ 476,200	$28,012
1950	49	1,504,800	30,710
1951	37	981,490	26,527

Baltimore County

Year	Total Number New 1- and 2-Family Structures	Total Value New 1- and 2-Family Structures	Average Value
1949	27	$ 920,000	$34,074
1950	38	1,351,663	35,570
1951	47	1,449,800	30,847

Year	Total No. New 1- and 2-Family Structures City and County	% in City	% in County
1949	44	38.6	61.4
1950	87	56.3	43.7
1951	84	44.0	56.0

Year	Total Value New 1- and 2-Family Structures City and County	% in City	% in County
1949	$ 1,396,200	34.1	65.9
1950	2,856,463	52.7	47.3
1951	2,431,290	40.4	59.6

Multifamily Structures

Because the information available from the assessment records was limited for multiple dwellings, it was necessary to seek additional sources for these data. Using a tabulation of multiple structures built since 1945 under the auspices of the U.S. Federal Housing Administration, it was possible to estimate the total number of dwelling units (apartments) completed in the City and County.

As shown in Table 6, Baltimore City gained 5,843 dwelling units in garden-type structures between 1945 through 1951. Baltimore County added 3,463 units. Per acre, the density of new dwelling units in Baltimore City was greater, 19.2 compared with 16.2 for the County.

A total of 659 dwelling units in 2 elevator apartment houses was completed in the City. No elevator structures were built in the County from 1945 through 1951. Table 6 indicates the high density of dwelling units per acre which can be provided by vertical structures.

Combining all multiple structures, Baltimore City added 6,142 dwelling units between 1945 and 1951; and Baltimore County, 3,463 dwelling units.

TABLE 6

New Multifamily Structures and Dwelling Units Completed in Baltimore City and Baltimore County, and Average Number of Dwelling Units Per Acre, 1945 - 1951

Garden-Type Multifamily Structures

Total Dwelling Units in Structures[1/]

Baltimore City	Baltimore County
5,843 Dwelling Units	3,463 Dwelling Units

Total Acreage of Structures[2/]

304 Acres	212 Acres

Average Number Dwelling Units Per Acre

19.2 Dwelling Units Per Acre	16.2 Dwelling Units Per Acre

Elevator-Type Multifamily Structures

Total Dwelling Units in Structures[1/]

659 Dwelling Units	0 Dwelling Units

Total Acreage of Structures[2/]

2.05 Acres	0 Acres

Average Dwelling Units Per Acre

329.5 Dwelling Units Per Acre	0 Dwelling Units Per Acre

Source: 1/ U.S. Federal Housing Administration

2/ Baltimore City: Department of Assessments
Baltimore County: Supervisor of Assessments

Special Study: District #1 in Baltimore County

During the course of gathering information on the whole of Baltimore City and County, it was felt that a detailed breakdown of one of the representative County areas would be useful and enlightening. The district chosen was #1 which roughly includes the area between Catonsville and Edmondson Village. The information has been tabulated in a form similar to the analysis preceding, with a comparative analysis between District #1 and the rest of Baltimore County.

As shown in Table 7, the total number and total value of 1- and 2-family structures built in District #1 increased progressively between 1949 and 1951. For the three-year period, 967 structures were completed in the District. Of this number, 385 were in the price range of $7,501 - $10,000, and 237 in the $5,001 - $7,500 range.

Table 8 compares the building activity in District #1 with the rest of the County. It can be seen that this District has become more and more important as an urban community, accounting for 6.8% of new construction in 1949 and rising to 10.2% of the total County activity in 1951. In the value of new 1- and 2-family structures, the District has grown even more important, accounting for 11.9% of the total reported for the County in 1951.

With these facts in mind, it should be noted that few cheaper 1- and 2-family structures ($0 - $2,500 and $2,501 - $5,000) were built in District #1. It was still slightly low in the $5,001 - $7,500 range except for 1950; but in the $7,501 - $10,000 class it was above average, especially in 1951, when, for a small district, it had as high as 22.8% of the total building in this range in the County. In comparison to other districts, there are comparatively few low-cost residential structures being constructed in this area. This indicates the presence of factors, here not analyzed, which make this area desirable for high grade development.

TABLE 7

Number and Value of New 1- and 2-Family Structures, by Price Range, District #1, Baltimore County, 1949 - 1951

Year	Number New 1- & 2-Family Structures	Value New 1- & 2-Family Structures	Average Value
		$0 - $2,500	
1949	13	$ 15,300	$ 1,177
1950	9	15,200	1,689
1951	13	20,460	1,574
		$2,501 - $5,000	
1949	72	$ 329,300	$ 4,574
1950	36	151,200	4,200
1951	55	249,600	4,538
		$5,001 - $7,500	
1949	46	$ 293,300	$ 6,376
1950	121	775,900	6,412
1951	70	473,500	6,764
		$7,501 - $10,000	
1949	58	$ 530,500	$ 9,147
1950	78	684,859	8,780
1951	249	2,067,550	8,303
		$10,001 - $12,500	
1949	12	$ 137,275	$11,440
1950	22	257,842	11,720
1951	15	173,300	11,553
		$12,501 - $15,000	
1949	4	$ 59,000	$14,750
1950	15	213,900	14,260
1951	17	239,932	14,114
		$15,001 - $17,500	
1949	1	$ 16,500	$16,500
1950	4	66,100	16,525
1951	1	16,000	16,000
		$17,501 - $20,000	
1949	4	$ 78,000	$19,500
1950	6	114,000	19,000
1951	3	56,000	18,667
		Over $20,000	
1949	1	$ 22,000	$22,000
1950	4	141,000	35,250
1951	0	0	---
		Total (All Values)	
1949	223	$1,481,175	$ 6,642
1950	316	2,420,001	7,658
1951	428	3,296,342	7,702

TABLE 8

Per Cent Distribution of New 1- and 2-Family Structures, by Price Range, District #1 and Rest of Baltimore County, 1949 - 1951

Year	Number of Structures: Whole County	% in #1	% in Rest	Value of Structures: Whole County	% in #1	% in Rest
			$0 - $2,500			
1949	307	4.2	95.8	$ 424,280	3.6	96.4
1950	293	3.1	96.9	438,775	3.5	96.5
1951	259	5.0	95.0	379,130	5.4	94.6
			$2,501 - $5,000			
1949	1,253	5.8	94.2	$5,216,985	6.3	93.7
1950	887	4.1	95.9	3,717,020	4.1	95.9
1951	1,286	4.3	95.7	5,184,250	4.8	95.2
			$5,001 - $7,500			
1949	851	5.4	94.6	$5,441,930	5.4	94.6
1950	1,019	11.9	88.1	6,502,228	11.9	88.1
1951	1,061	6.6	93.4	6,979,061	6.8	93.2
			$7,501 - $10,000			
1949	425	13.6	86.4	$3,773,540	14.1	85.9
1950	632	12.3	87.7	5,597,095	12.2	87.8
1951	1,092	22.8	77.2	9,451,860	21.9	78.1
			$10,001 - $12,500			
1949	101	11.9	88.1	$1,183,175	11.6	88.4
1950	245	9.0	91.0	2,879,234	9.0	91.0
1951	138	10.8	89.2	1,585,987	10.9	89.1
			$12,501 - $15,000			
1949	45	9.0	91.0	$ 646,400	9.1	90.9
1950	94	16.0	84.0	1,329,995	16.1	83.9
1951	104	16.3	83.7	1,478,683	16.2	83.8
			$15,001 - $17,500			
1949	20	5.0	95.0	$ 327,300	5.0	95.0
1950	29	13.8	86.2	473,226	14.0	86.0
1951	34	2.9	97.1	553,167	2.9	97.1
			$17,501 - $20,000			
1949	27	14.8	85.2	$ 515,432	15.1	84.9
1950	39	15.4	84.6	739,000	15.4	84.6
1951	36	8.3	91.7	683,885	8.2	91.8
			Over $20,000			
1949	27	3.7	96.3	$ 920,000	2.4	97.6
1950	38	10.5	89.5	1,351,663	10.4	89.6
1951	47	0	100.0	1,449,800	0	100.0
			Total (All Values)			
1949	3,277	6.8	93.2	$ 8,449,042	8.0	92.0
1950	3,560	8.9	91.1	23,028,236	10.5	89.5
1951	4,193	10.2	89.8	27,745,823	11.9	88.1

Summary

In this chapter the building activity in Baltimore City and Baltimore County for 1948 through 1951 has been considered in detail. The examination has been made both as to total building activity and as to activity in construction of certain types of 1- and 2-family structures arranged by price range.

In an attempt to provide more accurate yearly data an alternative method to that based on permits was used to ascertain the volume of new construction. An explanation of the method adopted and a comparison of the results for each method was also made.

Finally, a special study of District #1 of Baltimore County was completed to provide more detailed information on one of the faster growing communities surrounding Baltimore City. In the past few years the density and housing characteristics of this area have changed so completely, turning a formerly rural area into an active urban community.

CHAPTER II

A SURVEY OF RESIDENTS IN NEW 1- AND 2-FAMILY STRUCTURES IN BALTIMORE COUNTY

To supplement the statistical analysis of residential construction in Baltimore City and Baltimore County, it was decided that a survey should be undertaken to determine the extent to which City residents were moving to the County. To do this, a canvass of a random sample of the new residents in Baltimore County was conducted.

Sampling Problem

In choosing the sample the major problem was that of proper coverage of the large area of Baltimore County. A method had to be developed which would give accurate results with the available facilities.

Since most of the construction of new 1- and 2-family structures took place within a relatively short distance of the City limits, and since approximately 62% of the total number of 1- and 2-family structures in the County were built in Districts #1, 3, 9, and 15, it was decided to take a sample from these four districts only, and to project the results to the others. Then, if unsurveyed districts differed in each characteristic from surveyed districts, the resulting error would still be only a fraction of the total. For example, a 20% difference for 40% of the County means only an 8% difference for the whole County. This degree of error is regarded as sufficiently small for purposes of the present study.

Sample Size

It was determined that a sample size of about 100 would be large enough to give accurate results. The sample was distributed among persons who had moved into new 1- and 2-family structures in any of Districts #1, 3, 9, or 15 in any of the years 1949, 1950, or 1951. In order to make the

distribution an even one, a sample of nine residents from each district for each year was taken. This brought the total sample to 108.

Choosing the Sample

The sample was chosen from the files of the Baltimore County Bureau of Assessments. These were the same files from which the data on the building activity in the County were taken.

In order to assure a random sample the following method was employed. Each year and each district were treated separately. In other words, the first sample of nine residents was taken from the list of dwellings finished in 1949 in District #1 of Baltimore County.

Two sets of slips of paper were prepared. The first set designated a starting point in the file for a particular district. The starting points were front; back; middle, go to front; and middle, go to back. The second set of slips had numbers in gaps of five, e.g. 5, 10, 15, 20, etc. Before a district was started, a count was taken of the total number of homes listed; and the set of slips containing the numbers was adjusted so that the highest number coincided with the total number of homes. This was done to guarantee that no part of a file had a greater chance of being chosen than another. The slips in set one and the slips in set two were then placed in separate containers.

The actual drawing of the sample was conducted as follows. A district was taken for a certain year, e.g. District #1, 1949. The number of 1- and 2-family structures listed was counted, and set number two of slips was adjusted accordingly. Then a slip was drawn blindly from set number one and a starting point was designated, e.g. front.

A slip was then drawn from set number two blindly, and a number was designated, e.g. 245. Then starting from the front, a count was taken

to find the 245th 1- and 2-family structure from the front of the file. The address of this structure was listed. This procedure was repeated nine times for each district and each year, giving a total of 108 residents of new 1- and 2-family structures to be investigated. After the sample had been drawn, a personal interview of a responsible resident of each structure was taken.

Interview

The interview consisted primarily of three questions:

(1) How long, if at all, did you live in Baltimore City as a home owner or tenant prior to moving to the County?

(2) What type of home did you live in, prior to the acquisition of the new structure, e.g.: detached, semi-detached, row, apartment or other?

(3) What were your most important reasons for deciding to settle in the County?

The object of the first question was to determine how long previous Baltimoreans had lived in the City as homeowners or tenants prior to the rental or purchase of their County residence. This question also disclosed how many had not lived in the City at all before they moved to the County.

The second question was designed to provide a comparison of the type of structure vacated with the new one selected. Another interesting bit of information revealed was how many were renting in the City before they moved.

The third question was obviously aimed at explaining why the new residents chose to settle in the County.

Results of Survey

When the interviews were taken, eight non-responses were experienced. This left a total of 100 1- and 2-family structures from which

answers were received. The replies are tabulated on the basis of the number of persons answering each question.

TABLE 9

Previous Residence of Occupants of New 1- and 2-Family Structures in Baltimore County

	Baltimore City	Baltimore County[1/]	Outside Baltimore Area
Number of Households	62	30	5
% Total	63.9	30.9	5.2

Length of Residence in Baltimore City Prior to Moving

Less than 6 years	34
6 - 10	14
11 - 15	3
16 - 20	10
Over 20	1

1/ In addition, one was occupying summer home and 2 were newly formed households.

On consulting Table 9, it can be seen that 62 people who took up new residence in the County since 1949 lived in Baltimore City before moving. Of this number, over half had lived in Baltimore five years or less. In speaking of residence in Baltimore prior to taking up County residence, it is not intended to mean since childhood, but rather since becoming an independent homeowner, tenant, or household head. In most cases this would mean how long the person lived in Baltimore City after marriage.

Choice of Structure

On the basis of the replies reported in Table 10, a majority of the County households in new 1- and 2-family structures, 69 to be exact,

took up residence in detached houses. Of this number, 34 had previously occupied an apartment; 18 had lived in a row house; 16, in a detached house; and 1, in a semi-detached house. Among the 22 households preferring a row-house structure in the County, 10 had previously occupied an apartment; 7, a detached house; and 5, a row house.

It is noteworthy that 46 of the respondents had not been independent homeowners or renters prior to the period 1949-1951. This fact, in conjunction with the one revealed in Table 9 on the length of residence in the City before movement, points to two important sources of the demand for new 1- and 2-family structures in Baltimore County, namely, recently formed (and probably expanding households), as well as doubled-up families requiring their own quarters.

TABLE 10

Type of Dwelling Unit Previously Occupied by Residents of New 1- and 2-Family Structures in Baltimore County

Number of Households	Previous Occupancy[1/]	Present Occupancy
34	Apartment	Detached
10	Apartment	Row
4	Apartment	Apartment
7	Detached	Row
16	Detached	Detached
18	Row	Detached
1	Row	Apartment
1	Row	Semi-detached
5	Row	Row
1	Semi-detached	Detached

1/ Including multifamily structures.

Choice of Residence in Baltimore County

Two major reasons were given for taking up residence in the County:

(1) 36 of the residents of new 1- and 2-family structures settled in the County simply because they preferred the conditions generally attributed to this area. Such considerations as more privacy and quiet were cited. Also mentioned were the lower County taxes. However, there was not a single case where the tax difference was in itself the reason for taking up County residence. This is to be expected both because the tax difference is not as large as is often claimed, and because a large part of this difference is offset by factors such as increased transportation costs. Most of the people who indicated a general preference for the County had already been residents of the County prior to their most recent change of residence.

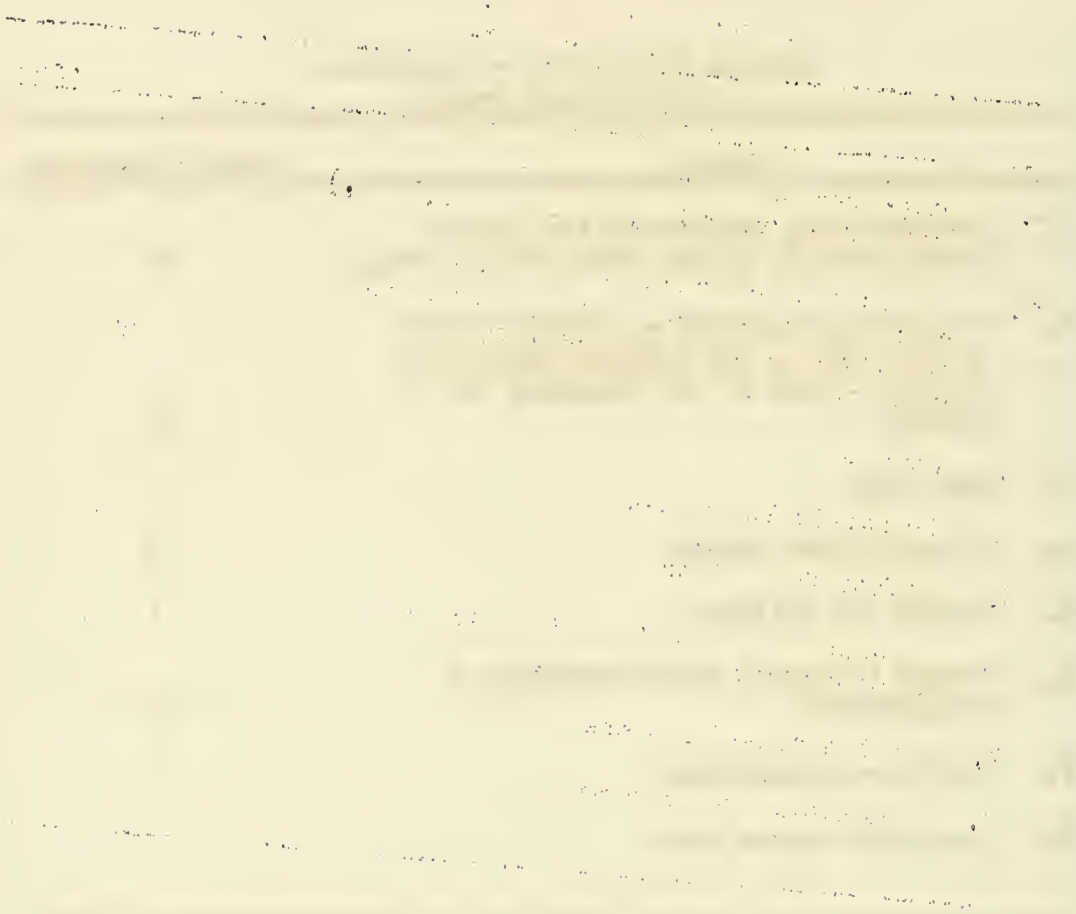
(2) 32 of the respondents chose the County because of the fear of urban overcrowding. Being faced with the problem of taking up independent residence as a homeowner or tenant for the first time, they felt that, in consideration of the possible future congested conditions in the City, they would prefer to settle in a less densely populated area. Since the average values of City and County 1- and 2-family structures from 1949 through 1951 were about the same, the choice of County residence was not a difficult one to make.

In addition to a general preference for the County and a desire to move away from City congestion, the respondents offered the following reasons for residence in the County: near place of employment, safety for children, changes in neighborhood characteristics, and health considerations. Eight per cent could give no particular reason for moving. (See Table 11.)

TABLE 11

Reasons for Choice of Residence
in Baltimore County

	Reason	Number Responses
1.	Long-standing preference for County (more privacy, quiet, lower taxes, etc.)	36
2.	Wanted own residence - refused to buy or rent new 1- and 2-family structure in city - felt it was becoming too crowded	32
3.	Near work	9
4.	No particular reason	8
5.	Safety for children	7
6.	Change in racial characteristic of neighborhood	4
7.	Health considerations	3
8.	Temporary summer home	1



CHAPTER III

FORECAST OF RESIDENTIAL EXPANSION IN BALTIMORE CITY AND BALTIMORE COUNTY TO 1975

Having presented a statistical study of construction of residential structures in Baltimore City and County and a survey of new County residents, it is desirable that consideration be given to the potential demand for local residential construction. Examination of this question has been carried out on the basis of residential land use in Baltimore City, since the potential saturation of City residential building areas obviously has direct bearing on the amount of building in the County and the City.

Vacant Residential Land in Baltimore City

It is known that in 1945 there were approximately 7,954 acres of residential building area still remaining in Baltimore City.[1/] It has also been estimated that 1,071 of these acres have been rezoned since 1945 for schools, commercial uses, and other reasons.[1/] This means that as of 1945, 6,883 acres were vacant and available for residential land use, excluding small bits of land scattered throughout the built-up sections.

In order to determine the residential land available as of 1952, it was necessary to estimate the acreage used between 1945 and 1951. This was done by estimating the land used by new 1- and 2-family structures and multifamily structures in this period, and subtracting the total from the 1945 figure.

Since the present study included a detailed tabulation of residential construction between 1948 and 1951, these data were used. For earlier years, it was necessary to resort to building permit data. During the seven-year period, it is estimated that 26,250 structures (1- and 2-

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1/ City Planning Commission

family) were completed in Baltimore City. Using an average of 15 structures per acre, it was found that approximately 1,750 acres of residential land were consumed during this period.[1] Added to this were 306 acres devoted to multifamily structures, making a total of 2,506 acres developed between 1945 and 1951. Deducting this figure from the 1945 net acreage, it was determined that, as of 1952, approximately 4,827 acres of vacant residential land in Baltimore City were still available for development.

Estimate of Dwelling Units to be Accommodated

Depending on the density of future residential construction in Baltimore City, the vacant land estimated above may be used up in a few years or may satisfy the needs of the City indefinitely. In order to determine the possible limits of construction, five assumptions were made concerning the density of future residential development in the City. These estimates were made without regard to existing or proposed zoning regulations. Determinations of desirable densities should stem from the land use studies, zoning proposals, and General Plan, which are primarily the responsibility of the City Planning Commission.

Assumed Densities. For purposes of forecasting, it was assumed that the future density of residential construction would approximate 5, 10, 15, 20 or 300 dwelling units per acre in Baltimore City.

The first assumption of 5 dwelling units per acre is intended to cover the possibility that future residential building will be completely in single detached structures. This assumption may be logical in consideration of the fact that most of the remaining City land lies near the County lines where the single structure is predominant. On the basis of

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1/ Average number of structures per acre was determined with the cooperation of the City Planning Commission.

this assumption, then there will be room for 24,135 dwelling units on the 4,827 acres left in the City, as of 1952.

The second assumption covers 10 dwelling units per acre. This assumption is intended to take account of the possibility that construction may be rather evenly divided between individual and row houses. Under this assumption there is room for 48,270 dwelling units in Baltimore City.

The third assumption of 15 dwelling units per acre takes account of the possibility that most of the future construction in the City will be of the row-house category. This and the next two assumptions take account of higher dwelling unit densities per acre. This is justified if consideration is given to the fact that as the City land becomes more scarce it may be more intensively utilized. Under this assumption of 15 dwelling units per acre there is room for 72,405 dwelling units.

The fourth assumption of 20 dwelling units per acre allows for garden-type multifamily structures, and is based on the average density of garden-apartment construction in Baltimore City from 1945 through 1951.[1/] Under this assumption there will be room for 96,540 dwelling units in Baltimore City.

The fifth and last assumption covers the possibility of construction of elevator-type multifamily structures. If allowance is made for possible construction of this type as the predominant one, then the saturation of residential land is very far in the future for Baltimore City and is, generally speaking, no longer of any significance. Under this assumption of 300 dwelling units per acre, there will be room for 1,448,100 additional dwelling units in Baltimore City.

1/ See Chapter I.

Forecast of Demand for New Dwelling Units by 1975

It has been determined how much land was available for residential building in Baltimore City as of 1952 and the number of dwelling units which could be accommodated on the available acreage. It is necessary now to discover what the future demand for housing will be and to match it with the number of new dwelling units which can be accommodated in Baltimore City.

It is not the purpose of a projection of future demand for dwelling units to state exactly how many will be needed each year. It is rather desired that this projection give a realistic picture of the approximate volume of future demand and, what may be even more important, just how quickly the available City residential areas are approaching saturation.

Method of Projection. The projection of future demand for new housing is based on a nationwide projection of new households, prepared by Dr. Arnold C. Harberger, of The Johns Hopkins University.[1/] With the projection of new households, the number of dwelling units needed is determined simultaneously. It is assumed that with the increasing availability of new housing and continuing prosperity, the tendency for doubling up will be reduced to a minimum.

Two assumptions have been made as to how the Baltimore area might follow the national trend. The first of these assumptions is that the Baltimore area will progress at the same rate projected for the Nation; the second, that the Baltimore area will increase its households at a rate about half again as great as the national rate. Consideration was given to the possible error resulting from different numbers of persons per household in the Baltimore area as against the whole United States. Such factors as

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1/ "Resources for Freedom," A Report to the President by The President's Materials Policy Commission, June 1952.

later marriages, larger families, greater doubling up, and less independent households for the aged might cause an area to have a much larger average number of persons per household. In such a case it would not be reasonable to assume that the local household growth rate would follow the national rate. However, since the average number of persons per household in the Baltimore area was very close to the national average, it was safe to assume that household formation in Baltimore would parallel the country's rate, and possibly exceed it.

Forecast for Baltimore Metropolitan Area. Applying the rate of growth forecast for the United States, as shown in Table 12, it was determined that by 1975 the Baltimore Metropolitan Area would have a total of 536,400 households. This would mean an increase of 167,900 households over the 1950 Census figure. Assuming that the rate of growth in Baltimore would be one and one-half times the national rate, the number of households in the Metropolitan Area would increase by 280,900 in 1975.

To determine what proportion of the total need for dwelling units would be borne by Baltimore City, Baltimore County, and Anne Arundel County, a breakdown was made on the basis of relative volume of building since 1947: 40% for Baltimore City; 40% for Baltimore County; and 20% for Anne Arundel County.

According to the projections made, there will be a need for about 67,200 dwelling units in each Baltimore City and Baltimore County by 1975 under the first assumption, and for 112,300 dwelling units under the second.

Anne Arundel County should have an increase of about 33,500 households under the first assumption and 56,200 under the second. The two County areas have adequate residential land available to accommodate the expansion forecast.

TABLE 12

Forecast of Increase in Dwelling Units,
United States and Baltimore Metropolitan Area,
1950 - 1975

United States[1/]

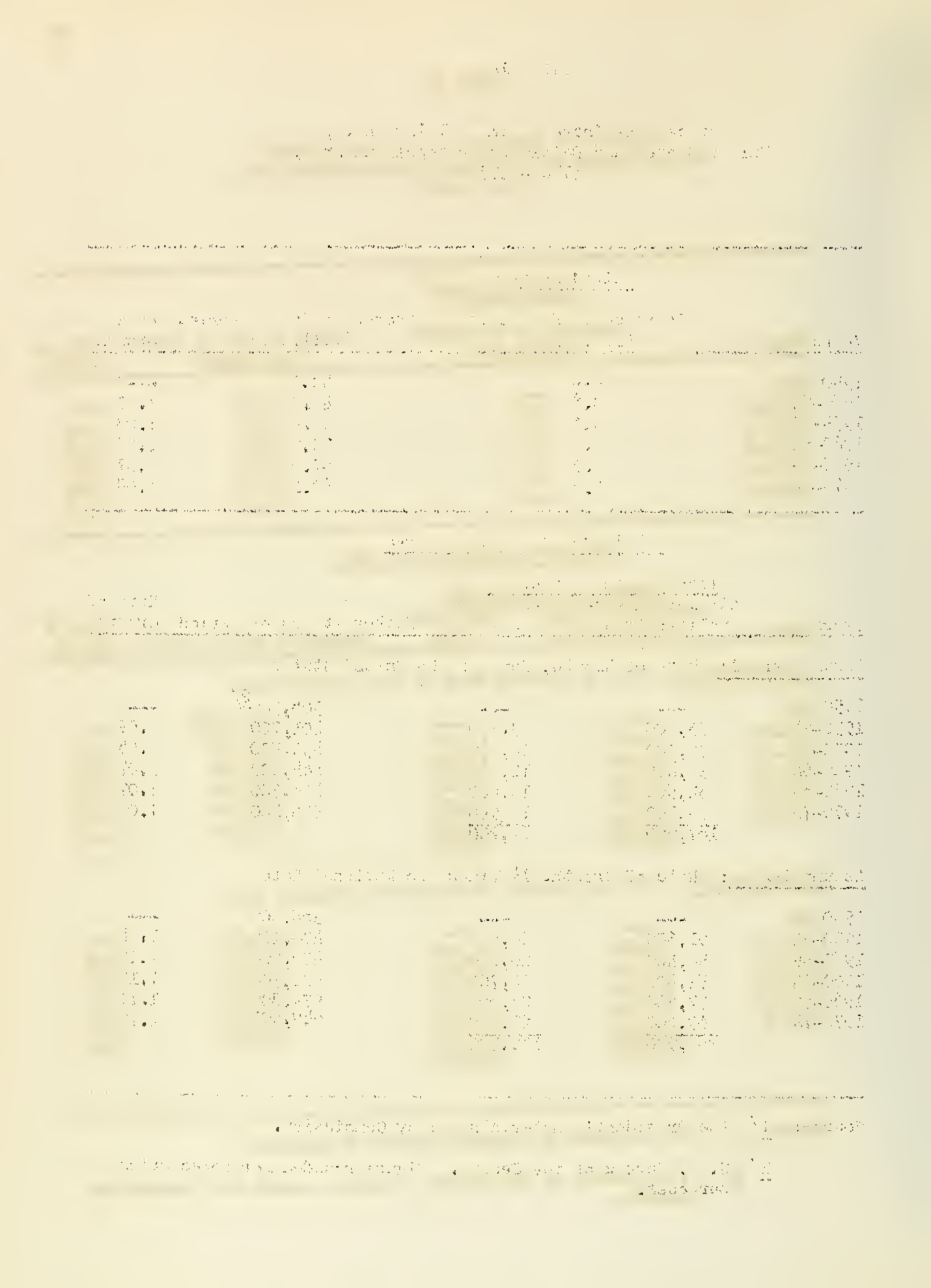
Years	Increase in Households (Millions)	Number at End of Period (Millions)	Rate of Growth
1950	---	43.0	---
1950-54	3.8	46.8	1.09
1955-59	3.6	50.4	1.08
1960-64	3.5	53.9	1.07
1965-69	3.9	57.8	1.07
1970-74	4.6	62.4	1.08

Baltimore Metropolitan Area

Years	Increase in Households: Baltimore Metropolitan Area	Increase in Households: Baltimore City	Number at End of Period	Rate of Growth
Assumption #1: Rate of Growth, Same as the United States				
1950	---	---	368,500[2/]	---
1950-54	33,200	13,300	401,700	1.09
1955-59	32,100	12,800	433,800	1.08
1960-64	30,400	12,200	464,200	1.07
1965-69	32,500	13,000	496,700	1.07
1970-74	39,700	15,900	536,400	1.08
	167,900	67,200		
Assumption #2: Rate of Growth, 1½ Times the National Rate				
1950	---	---	368,500	---
1950-54	51,600	20,600	420,100	1.14
1955-59	50,400	20,200	470,500	1.12
1960-64	51,800	20,700	522,300	1.11
1965-69	57,500	23,000	579,800	1.11
1970-74	69,600	27,800	649,400	1.12
	280,900	112,300		

Source: 1/ The President's Materials Policy Commission.

2/ U. S. Bureau of the Census. Figure rounded for forecasting purposes.



Housing Demand versus Available Space

It was determined that under the assumption of five dwelling units per acre in Baltimore City in the future, there would be room for 24,135 dwelling units on the vacant residential land remaining in 1952. Thus under this assumption Baltimore City could provide for a little over one third of the 67,200 dwelling units which will be needed by 1975. Referring to Table 12, it can be seen that the residential land would be used up before 1960, on the basis of five dwelling units per acre.

Under the assumption of 10 dwelling units per acre in Baltimore City, 48,270 dwelling units can be constructed on the remaining residential land. On this basis, the City would not be able to meet the demand for new dwelling units after 1970.

Assuming 15 dwelling units per acre there is room for 72,405 dwelling units. In this case the City could handle the demand for dwelling units, assuming new household formation at the same rate as the national rate.

Under the assumption of 20 dwelling units per acre the City will be equipped to handle its future demand for dwelling units quite easily and for many years, as there is room for 96,540 units in this category.

On the other hand, if Baltimore's rate of growth should exceed the national rate by one half, new construction, even at 20 dwelling units per acre, would be inadequate. It is apparent that, under these circumstances, the City will be faced with a problem of residential land shortage, unless elevator-type structures are built in greater numbers. One elevator apartment house on an acre of land can house 20 times as many families as group homes built on the same property.

Possible Deterrents to City Residential Land Saturation

It is obvious that several factors may deter for a long period the ultimate saturation of the vacant City residential areas. These factors are of two main types: (1) those which provide for more dwelling units per acre within the City limits; and (2) those which draw residents from the City into the County areas and therefore reduce the quantity of dwelling units demanded in the City.

There are in general two ways of providing for more dwelling units per acre within the City limits. The first is to build mostly multifamily structures on the remaining residential areas in Baltimore City. This, of course, would allow a very high dwelling unit density per acre and thus permit the satisfaction of a much larger quantity of dwelling units demanded. It is difficult to say just how practical this method is, since if it is to be used successfully several other rather important conditions must be fulfilled. The zoning regulations would have to be changed in many areas to permit construction of multifamily structures, especially those of the elevator type. Furthermore, not all vacant areas are suited to the building of such structures because of terrain and other site considerations. Problems of over-all city planning would also be involved, particularly in regard to the availability of adequate community facilities and utilities to accommodate the higher densities.

The second way to provide for more dwelling units, within the City, deals with the reuse of old City areas. There are many substandard and deteriorating areas in the City where redevelopment could be effectively undertaken. If elevator apartment houses are constructed in the redeveloped areas, many more dwelling units could be provided within the City. However, there are also certain obstacles which may arise. In order for the construction of elevator multifamily buildings in the old City area to be a

successful solution to the saturation problem, the prevailing local attitude toward vertical living may have to be revised. Also, assurance of adequate school facilities and good environment will be necessary to attract new residents to formerly substandard areas.

Transportation can be an important factor in keeping residents within the City. If a person works in the City proper, he may understandably have a preference for being near his place of business. The advantage of having to spend less time in transit to and from work may overcome some of the objections to City residence and may provide a constant demand for City dwelling units, particularly in the redeveloped sections. However, if rapid transit is introduced or transportation facilities improved, then the reduction in travel time may lessen the advantages of City residence and influence migration to the County.

By the same token, as new firms locate outside the City limits, as established firms expand their operations, and as factories move to less congested areas beyond the City's edge, new residents will be attracted to the County in order to be near their place of employment. Dispersal of industry, particularly from the point of view of civil defense, cannot be overlooked as a factor operating to leveloff the City's growth of households and housing demand.

It should be noted that these factors which may deter the saturation of the City residential areas do not act independently of one another. Generally, a person faced with setting up an independent household weighs the advantages and disadvantages of settling in the City or the County. Whether or not the City's problem is acute depends on whether the provision of higher density housing within the City and/or the drawing power of the County is successful in slowing up the saturation of remaining residential City areas.

Problem of Rapid Urbanization

Although it appears that Baltimore City is in no acute danger of residential saturation, the fact remains that Baltimore County is faced with a very rapid urbanization of its areas, especially those near the City limits. As indicated above, some factors which may act as deterrents to saturation of City residential areas may act to accentuate the County's growth. It is true that rapid urbanization is nothing new for Baltimore County. The last ten years have been ones of rapid development of many of the districts of Baltimore County. However, the results of the projection made in this report indicate that the future will bring no slackening of development and may bring a greater rate of construction. Therefore, some of the possible consequences of this rapid urbanization should be considered.

The most obvious effect of urbanization is on public services. An increase between 67,200 and 112,300 dwelling units in the next two decades will bring on new demands for water and sewage facilities, schools, parks, recreation areas, and other community facilities. The increase in households will also require additional fire and police protection.

A major problem which has been disturbing the Baltimore Metropolitan Area for several years will become more and more acute as the population of the County becomes greater. This is the provision of adequate transportation facilities in and out of the City, including both better public transportation and better roads for private transport. The new 12-year State Highway Program, adopted by the 1953 General Assembly, and the master transportation plans of the City and County should minimize the Area's long-range transportation problems. However, continuing coordination is required to provide answers to new problems arising in the Area, so as to prevent them from developing into more serious situations.

SUMMARY AND CONCLUSIONS

In Chapter I the tabulation showed that the largest volume of construction of 1- and 2-family structures was in the $5,001 - $7,500 price range. From 1949 through 1951, Baltimore City had an increase of 11,001 1- and 2-family structures as compared with 11,030 for Baltimore County. It was shown that from 1945-1951 Baltimore City exceeded Baltimore County by over 2,000 dwelling units in garden-type multifamily structures. In the elevator-type multifamily structures Baltimore City added 659 dwelling units, whereas Baltimore County had none.

In Chapter II several interesting facts were brought out by the interview of a sample of the residents in new County structures. Two thirds of the respondents had previously lived in Baltimore City. Many of these were homeowners for the first time. The major reason for leaving the City was that it was becoming crowded. Respondents who formerly resided in the County indicated a long-standing preference for the privacy, quiet, and lower taxes associated with County residence. Proximity to employment was another important reason.

Chapter III showed that as of 1952, there were 4,827 acres of vacant residential land in Baltimore City. Under various assumptions of density per acre, it was determined that there is room for between 24,135 and 1,448,100 dwelling units on the remaining acreage. Assuming that Baltimore Metropolitan Area grows at the same household rate as the United States as a whole, there will be 67,200 dwelling units needed by 1975 in Baltimore City.

If, as in the past, the Baltimore Metropolitan Area grows at a rate half again as great as the national rate, 112,300 dwelling units will be needed by 1975 in Baltimore City.

With these results at hand, it was determined that the problem of saturation of vacant residential land in Baltimore City was not acute at present, due mainly to the possibilities of vertical construction, redevelopment of deteriorated areas, and the factors which are likely to draw more City households to the County. By the same token, Baltimore County is faced with increasing urbanization of many of its areas in the next 25 years.

Thus it is in order to recommend to Baltimore City that it keep a careful account of its future development, since it has been shown that if the density of dwelling units per acre is very low, saturation could become a real problem. Planning for further redevelopment of deteriorated areas and for higher density residential areas should be carried out on a City-wide basis.

To Baltimore County the recommendations are of a different nature. Here, there is an expectation of a very rapid growth. In order that this growth may be an asset rather than a hindrance to the community, preparation should be made to keep public works and services in line with the anticipated expansion of residential areas and new industrial development.

It is also essential that continuing cooperation of local and State government levels be maintained, so that coordinated planning of transportation, utilities, and other community facilities will be assured. With anticipation and scheduling of its long-range needs, the Baltimore Metropolitan Area can look forward to a healthful and prosperous growth of its many residential communities.